

**CLAIMS**

What is claimed is:

1. A composite comprising at least one heat shrinkable layer stitch-bonded with a network of yarns wherein the shrinking temperature of the shrinkable layer is lower than the melting temperature of the stitch-bonded yarns, and wherein shrinkable layer shrinks and causes the stitch-bonded yarns to form loops emanating from the shrunk layer, and wherein the shrunk layer is substantially inelastic.
2. The composite of claim 1, wherein the loops have a frequency of at least 10 per inch in at least one direction and a height of less than about 2.0 mm.
3. The composite of claim 1, wherein the shrunk composite is dimensionally stable.
4. The composite of claim 1, wherein the stretchability of the shrunken composite is less than about 20% strain under a 5 lb/inch pull on a 1 inch wide by 8 inch long strip of the composite.
5. The composite of claim 1, wherein the heat shrinkable layer comprises a non-woven fabric, a woven fabric or a knit fabric.
6. The composite of claim 1, wherein the heat shrinkable layer comprises a plastic film.
7. The composite of claim 1, wherein the heat shrinkable layer is shrinkable by about 10% to about 50% in at least one direction.
8. The composite of claim 7, wherein the heat shrinkable layer is shrinkable in two directions.
9. The composite of claim 1, wherein the heat shrinkable layer is shrinkable by at least about 20% in at least one direction.

10. The composite of claim 9, wherein the heat shrinkable layer is shrinkable in two directions.
11. The composite of claim 1, wherein the yarns are substantially non-shrinkable.
- 5 12. The composite of claim 1, wherein the yarns comprise a flat filament yarn.
13. The composite of claim 1, wherein the yarns comprise a staple-based yarn.
- 10 14. The composite of claim 1, wherein the yarns comprise a bulked twisted filament yarn.
15. The composite of claim 1, wherein the yarns comprise a composite staple/continuous filament yarn.
- 15 16. The composite of claim 1, wherein the yarns comprise textured polymeric yarns
17. The composite of claim 1, wherein the yarns comprise composite flat and textured yarns.
- 20 18. The composite of claim 1, wherein the yarns are stitched to the heat shrinkable layer in accordance with two or more distinct stitching patterns.
19. The composite of claim 1, further comprising at least one fibrous layer stitch-bonded to the heat shrinkable layer.
- 25 20. The composite of claim 19, wherein the fibrous layer is less shrinkable than the heat shrinkable layer.
21. The composite of claim 20, wherein the fibrous layer is substantially non-shrinkable.
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22. The composite of claim 20, wherein the fibrous layer forms second loops when the heat shrinkable layer shrinks.

5 23. The composite of claim 20, wherein the fibrous layer is bonded to the heat shrinkable layer at locations proximate the stitching points.

24. The composite of claim 19, wherein the fibrous layer is positioned on the technical front of the heat shrinkable layer.

10 25. The composite of claim 19, wherein the fibrous layer is positioned on the technical back of the heat shrinkable layer.

26. The composite of claim 19, wherein the fibrous layer comprises from about 10% up to about 50% low melt binder, the low melt binder bonding surface fibers within the fibrous layer.

15 27. The composite of claim 19, wherein the fibrous layer comprises a non-woven layer, a woven layer, a knit layer or a stitch-bonded layer.

28. The composite of claim 19, wherein the non-woven layer is a spunlaced nonwoven.

20 29. The composite of claim 1, wherein the composite is stitch-bonded with a gauge from about 3 per inch up to about 22 per inch and a CPI from about 6 per inch up to about 24 per inch.

25 30. The composite of claim 1, wherein the composite is stitch-bonded with a gauge from about 9 per inch up to about 22 per inch and a CPI from about 12 per inch up to about 24 per inch.

30 31. The composite of claim 1, wherein the heat shrinkable layer is an adhesive layer.

32. The composite of claim 31, wherein the adhesive layer comprises a thermoplastic adhesive.
33. The composite of claim 32, wherein the thermoplastic adhesive comprises a polyolefin.
- 5 34. The composite of claim 1 further comprising an adhesive layer.
35. The composite of claim 34, wherein the adhesive layer is stitch-bonded to the heat shrinkable layer.
- 10 36. The composite of claim 34, wherein the adhesive layer is substantially non-shrinkable.
37. The composite of claim 34, wherein the adhesive layer is shrinkable.
- 15 38. The composite of claim 31, wherein the adhesive layer shrinks to a flat layer.
39. The composite of claim 31, wherein the adhesive layer is activated to encase the vertical portions of the stitch-bonded yarns passing through the adhesive layer.
- 20 40. The composite of claim 1, wherein the composite is laminated to a backing layer.
41. The composite of claim 1, wherein the composite is embossed to a backing layer.
42. A method of making a composite comprising:
- 25 providing a heat shrinkable layer;
- stitch-bonding the heat shrinkable layer with yarns that are less shrinkable than the heat shrinkable layer;
- exposing the stitch-bonded heat shrinkable layer to heat to shrink said layer; and
- said shrinkage causing loops emanating from the shrunk layer to form from the stitch-
- 30 bonding yarns.

43. The method of claim 42, wherein the step of providing the heat shrinkable layer comprises the step of selecting said layer to be shrinkable by about 10% to about 50% in at least one direction.
- 5 44. The method of claim 43, wherein the heat shrinkable layer is shrinkable in two directions.
45. The method of claim 42, wherein the step of providing the heat shrinkable layer comprises the step of selecting said layer to be shrinkable by at least about 20% in at least one  
10 direction.
46. The method of claim 45, wherein the heat shrinkable layer is shrinkable in two directions.
- 15 47. The method of claim 42, wherein the step of stitch-bonding the heat shrinkable layer comprises stitching in two or more distinct stitching patterns.
48. The method of claim 42, wherein the composite is laminated to a backing layer.
- 20 49. The method of claim 42, wherein the composite is embossed to a backing layer.
50. The method of claim 42, further comprising the steps of selecting a fibrous layer and stitch-bonding the fibrous layer with the heat shrinkable layer.
- 25 51. The method of claim 50, wherein the fibrous layer comprises a spunlaced nonwoven.
52. The method of claim 50, wherein the step of selecting the fibrous layer includes selecting a fibrous layer that is substantially non-shrinkable.
- 30 53. The method of claim 50, wherein the step of selecting the fibrous layer includes selecting a fibrous layer that is less shrinkable than the heat shrinkable layer.

54. The method of claim 50, further comprising the step of forming second loops created from the fibrous layer.

5 55. The method of claim 42, wherein the heat shrinkable layer is an adhesive layer.

56. The method of claim 42 further comprising the steps of providing an adhesive layer and bonding the adhesive layer to the heat shrinkable layer.

10 57. The method of claim 56, wherein the adhesive layer is shrinkable.

58. The method of claim 56, wherein the adhesive layer is substantially non-shrinkable.

15 59. The method of claim 55, wherein the step of exposing the stitch-bonded adhesive layer includes the step of bonding the stitch-bonding yarns to the adhesive layer.

60. The method of claim 56, wherein the step of exposing the stitch-bonded adhesive layer includes the step of bonding the stitch-bonding yarns to the adhesive layer.

20 61. A composite comprising at least one heat shrinkable layer stitch-bonded with yarns that shrink less than the heat shrinkable layer when the composite is exposed to heat, wherein the stitch-bonded yarns form loops upstanding from the shrunk layer and the loops create a textured surface on the composite and wherein the composite is substantially inelastic after the heat shrinkable layer is shrunk.

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62. The composite of claim 61, wherein the heat shrinkable layer is an adhesive layer.

63. The composite of claim 61 further comprises an adhesive layer.

30 64. The composite of claim 63, wherein the adhesive layer is substantially non-shrinkable.

65. The composite of claim 63, wherein the adhesive layer is shrinkable.
66. The composite of claim 63, wherein the adhesive layer is stitch-bonded to the heat shrinkable layer.
- 5 67. The composite of claim 61, wherein the stitch-bonded yarns are substantially non-shrinkable.
68. The composite of claim 61 further comprising at least one fibrous layer stitch-bonded to  
10 the shrinkable adhesive layer.
69. The composite of claim 61, wherein the fibrous layer is less shrinkable than the adhesive layer.
- 15 70. The composite of claim 61, wherein the fibrous layer is substantially non-shrinkable.
71. The composite of claim 70, wherein the fibrous layer forms second loops when the adhesive layer shrinks.
- 20 72. The composite of claim 61, wherein the stretchability of the composite is less than about 20% strain under a 5 lb/inch pull on a 1 inch wide by 8 inch long strip of the composite.
73. The composite of claim 72, wherein the stretchability is less than about 10% .
- 25 74. The composite of claim 63, wherein the adhesive layer is applied to the heat shrinkable layer.